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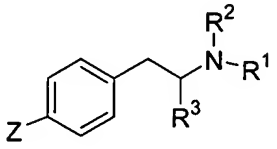
What is claimed is:

1. (currently amended) A compound having the structure



wherein

R^1 is an alkyl group comprising 2-6 carbon atoms,

R^2 is selected from the group consisting of hydrogen~~, alkyl groups,~~ and protecting groups,

R^3 is an optionally substituted alkyl group comprising 1-4 carbon atoms, and

Z is L-X-Q wherein L comprises 1-15 carbon atoms and 0-6 heteroatoms, with the proviso that L is bound to the ring carbon atom via $-CH_2-$ or $-CH_2O-$, X is selected from the group consisting of O, CO, NR^4, S, C(=NH)O, NH(CO), NH(CO)NH, NH(CS), NH(CS)NH, O(CO)NH, and NH(C=NH), ~~and maleimidothioether,~~ wherein R^4 is selected from the group consisting of hydrogen and alkyl groups comprising 1-4 carbon atoms, and Q is selected from the group consisting of hydrogen, hydroxyl, leaving groups, macromolecular carriers, and labels.

2. (original) The compound of claim 1 wherein the macromolecular carrier is selected from the group consisting of proteins, polypeptides, and polysaccharides.

3. (original) The compound of claim 1 wherein the macromolecular carrier is selected from the group consisting of keyhole limpet hemocyanin, bovine serum albumin, and bovine thyroglobulin.

4. (cancelled)

5. (original) The compound of claim 1 wherein L is $(CH_2)_3$ and X is CO.

6. (original) The compound of claim 1 wherein Q is a leaving group.

7. (original) The compound of claim 1 wherein R^1 is ethyl, R^3 is methyl, and Q is a leaving group comprising N-oxysuccinimide.

8. (cancelled)

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9. (cancelled)

10. (original) Cell line NEAMP 48.2, ATCC designation PTA-5295, producing a monoclonal antibody binding preferentially to MDEA.

11. (original) A monoclonal antibody produced from cell line NEAMP 48.2, ATCC designation PTA-5295, the antibody binding preferentially to MDEA.

12. (cancelled)

13. (original) Cell line NEAMP 62.1, ATCC designation PTA-5294, producing a monoclonal antibody binding preferentially to MDEA.

14. (original) A monoclonal antibody produced from cell line NEAMP 62.1, ATCC designation PTA-5294, the antibody binding preferentially to MDEA.

15. (cancelled)

16. (original) An antibody that preferentially binds MDEA relative to other members of the ecstasy class of drugs.

17. (original) The antibody of claim 16 characterized by having greater than 90% cross-reactivity to N-ethylamphetamine.

18. (original) The antibody of claim 17 characterized by having greater than 1% cross-reactivity to *d*-methamphetamine.

19. (original) The antibody of claim 16 characterized by having less than 1% cross-reactivity each to ephedrine, pseudoephedrine, and phenylpropanolamine.

20. (original) The antibody of claim 16 characterized by having less than 20% cross-reactivity to N-ethylamphetamine.

21. (original) The antibody of claim 16 characterized by having greater than 40% cross-reactivity to BDB.

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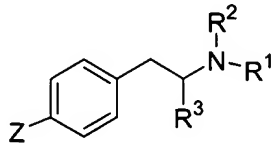
22. (currently amended) An antibody generated in response to a compound having the structure



wherein

R^1 is an alkyl group comprising 2-6 carbon atoms,

R^2 is selected from the group consisting of hydrogen~~, alkyl groups,~~ and protecting groups,

R^3 is an optionally substituted alkyl group comprising 1-4 carbon atoms, and

Z is L-X-Q wherein L comprises 1-15 carbon atoms and 0-6 heteroatoms, with the proviso that L is bound to the ring carbon atom via $-CH_2-$ or $-CH_2O-$, X is selected from the group consisting of O, CO, NR^4, S, C(=NH)O, NH(CO), NH(CO)NH, NH(CS), NH(CS)NH, O(CO)NH, and NH(C=NH), ~~and maleimidothioether,~~ wherein R^4 is selected from the group consisting of hydrogen and alkyl groups comprising 1-4 carbon atoms, and Q is a macromolecular carrier selected from the group consisting of proteins, polypeptides, and polysaccharides.

23. (original) The antibody of claim 22 wherein the protein is selected from the group consisting of keyhole limpet hemocyanin, bovine serum albumin, and bovine thyroglobulin.

24. (original) The antibody of claim 22 wherein L is $(CH_2)_3$ and X is CO.

25. (original) The antibody of claim 24 wherein R^1 is ethyl and R^3 is methyl.

26. (original) A reagent kit comprising the antibody of claim 16.

27. (original) A reagent kit comprising the antibody of claim 17.

28. (original) A reagent kit comprising the antibody of claim 18.

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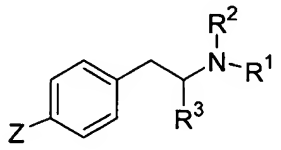
29. (currently amended) A method for producing an antibody comprising inoculating a host with an immunogen comprising the structure



wherein

R^1 is an alkyl group comprising 2-6 carbon atoms,

R^2 is selected from the group consisting of hydrogen~~, alkyl groups,~~ and protecting groups,

R^3 is an optionally substituted alkyl group comprising 1-4 carbon atoms, and

Z is L-X-Q wherein L comprises 1-15 carbon atoms and 0-6 heteroatoms, with the proviso that L is bound to the ring carbon atom via $-CH_2-$ or $-CH_2O-$, X is selected from the group consisting of O, CO, NR^4, S, C(=NH)O, NH(CO), NH(CO)NH, NH(CS), NH(CS)NH, O(CO)NH, and NH(C=NH), ~~and maleimidothioether,~~ wherein R^4 is selected from the group consisting of hydrogen and alkyl groups comprising 1-4 carbon atoms, and Q is a macromolecular carrier selected from the group consisting of proteins, polypeptides, and polysaccharides.

30. (original) The method of claim 29 wherein L is $(CH_2)_3$ and X is CO.

31. (original) The method of claim 29 wherein R^1 is ethyl and R^3 is methyl.

32. (original) The method of claim 29 wherein Q is a protein selected from the group consisting of hemocyanins, globulins, and albumins.

33. (currently amended) A method for detecting an analyte in a sample, the analyte comprising an ecstasy drug or an ecstasy drug derivative, comprising:

contacting the sample with the antibody of claim 16 and a label which is detectable upon binding of the antibody to the analyte,

binding the antibody to the analyte, and

detecting a complex formed by the antibody and the analyte.

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34. (cancelled)

35. (cancelled)

36. (currently amended) A method of detecting an analyte in a sample, the analyte comprising an ecstasy drug or an ecstasy drug derivative, comprising:

contacting the sample with the antibody of claim 17 and a label which is detectable upon binding of the antibody to the analyte,

binding the antibody to the analyte, and

detecting a complex formed by the antibody and the analyte.

37. (cancelled)

38. (cancelled)